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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/421,605	10/20/99	GLAWE	A 2393/504

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EXAMINER	
JACKSON, M	
ART UNIT	**PAPER NUMBER**
1773	10

DATE MAILED: 10/22/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

PTO-90C (Rev. 2/95)

1- File Copy

Office Action Summary	Application N .	Applicant(s)	
	09/421,605	GLAWE ET AL	
	Examiner	Art Unit	
	Monique R Jackson	1773	

– The MAILING DATE of this communication appears on the cover sheet with the correspond nce address –

Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 August 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. The amendment filed 8/3/01 has been entered. New claims 36-38 have been added. Claims 1-38 are pending in the application.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. The disclosure is objected to because of the following informalities: at page 7, lines 26-27, the specification recites that inner layer 16 "typically has a thickness of **greater than about 37μm**, most preferably about 45μm" while Claim 29 recites "**greater than about 35μm**". Hence, there is a discrepancy in the disclosure with regards to the inner layer thickness and hence the specification provides no literal support for the claim limitation recited in Claim 29.

Appropriate correction is required.

4. The use of the various trademarks has been noted in this application. They should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 33-35 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 33-35 recites "wherein the at least one adhesive **occupies** a thickness of" in line 2, however, the original disclosure at the time of filing fails to a description with regards to the at least one adhesive **occupying** a thickness.

7. Claims 1-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 36, 37 and 38 recite the limitation "an outer layer comprising a blend of a very low density polyolefin, ethylene vinyl acetate and a compatibilizer". The original disclosure recites that the "compatibilizer" is preferably ethylene α-olefin having a density less than 0.900 which reads upon a very low density polyolefin and hence the compatibilizer and the very low density polyolefin are defined so broadly that they read upon one another, therefore causing confusion as to exactly what materials are required by the claims. A claim in which one ingredient is defined so broadly that it reads upon a second does not meet the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Ferm and Boynton*, 162 USPQ (BdPatApp & Int 1969.)

8. Claims 6, 19, 24, 26, 28 and 32 are rejection under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for the reasons as recited in the prior office action. The recited claims rely on trademarks as the only limitations narrowing a preceding claim wherein the use of trademarks in a claim is inherently indefinite given that the trademark can change over time and hence does not provide a sufficient description of the limitations intended to be encompassed by

the claims. Further, it is noted that the use of trademarks in a claim adversely affects their validity as trademarks.

9. Claim 29 is rejection under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for the reasons as recited in the prior office action. Claim 29 recites the limitation "greater than about 35μm" in line 2 that renders the claims indefinite for the reasons previously recited given that the specification provides no clear description of what range the term "**greater than about 35μm**" is meant to encompass. The specification at page 7, lines 26-27, recites that inner layer 16 "typically has a thickness of **greater than about 37μm**, most preferably about 45μm." Hence, the specifically not only fails to provide a clear description of the term "**greater than about 35μm**", but also fails to provide any literal support for the term. Hence, the Examiner maintains that the claim is indefinite.

10. Claims 33-35 are rejected under 35 U.S.C 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Amended Claims 33-35 recite the limitation "wherein the at least one adhesive occupies a thickness of about" however this limitation is unclear given that the specification provides no description of the term "occupies" and hence the limitation "at least one adhesive occupies a thickness" is unclear as to whether the entire film with at least one adhesive could occupy the recited thickness or whether all of the adhesive layers occupy the recited thickness or a single adhesive layer occupies the recited thickness. The Examiner restates the suggestion of the prior office action that the claims be drafted to specify that the at least one adhesive is an adhesive layer or adhesive film or adhesive coat which has the indicated thickness.

11. Claim 36 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 36 recites the limitation "the top layer" in line 13. There is insufficient antecedent basis for this limitation in the claim. For examination purposes, the Examiner will assume the claim should read "the outer layer" as recited in lines 11 and 15.

12. Claim 37 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 37 recites the abbreviation "MP" in line 10, however it is unclear whether MP refers to melting peak, melting point, or other term. The Examiner suggests that the Applicant avoid the use of abbreviations in the claims or provides the full terminology adjacent the first occurrence of the abbreviation.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

14. Claims 1, 4-5, 7-9, 20-22, 27, 29-31, 33-35, and 37 are rejected under 35 U.S.C. 102(e) as being anticipated by Shepard et al (USPN 6,068,933.) Sheppard et al teach a multilayer polymeric film that is desirable for thermoforming applications wherein the film has improved clarity, gloss, and low haze (Abstract.) The multilayer films are useful for packaging of products such as food, have a thickness of 2-10 mils (*50.8μm-254μm*), and comprises inner layer(s) of

nylon, preferably 5-35wt% of an amorphous nylon which is characterized by the lack of an endotherm crystalline melting point in a Differential Scanning Calorimeter test, blended with one or more various other nylons commonly used in the art of making polymer films such as nylon 6, nylon 6,6, or nylon 12, with each nylon layer having a thickness of from 5 to 20% of the thickness of the film (*hence ranging from 0.1μm-50.8μm*; Col. 6, lines 60-61; Col. 9, lines 60-62; Col. 10, lines 36-38; Col. 11, lines 20-21 and lines 55-57; Col. 4, lines 29-32; Col. 7, lines 23-Col. 14; Col. 9, line 10.) Shepard et al teach that the multilayer films also comprise a sealant layer capable of forming a heat seal and comprising any of various polymers including LLDPE which includes all linear **polyethylenes with a density up to about 0.95g/cc** (equivalent to compatabilizer), LDPE, **EVA**, MDPE, EMA, olefins catalyzed by single site catalysts (metallocene catalyzed olefins), EMA, EMAA, **an ionomer**, or **a blend of any of these polymers**, with examples heat seal polymers including a very low density polyethylene formed from ethylene and octane, and has a thickness of between 15-40% of the film thickness (*hence ranging from 7.62μm-101.6μm*; ULDPE – equivalent to compatibilizer of instant invention inherently having a density and melting point as instantly claimed; Col. 5, line 44- Col. 6, line 4.) The multilayer films may further comprise adhesive layers such as anhydride modified polyolefins and have a thickness of 5-40% of the film thickness (*hence ranging from 0.1μm-50.8μm*; Col. 8, lines 23-35.) The multilayer film may further include antiblocking agents (processing aids) (Col. 8, lines 52-60.) Shepard et al specifically teach an embodiment comprising a sealant outer layer, nylon intermediate layers, two adhesive layers, and a second non-moisture barrier outer layer on the other side of the nylon core layers wherein the non-moisture barrier outer layer may comprise any of the following polymers: medium density

polyethylene, LLDPE, LDPE, EVA, styrene, EMA, EAA, EMAA, an ionomer, or blends of any of these polymers (Col. 11, lines 43-49.)

Claim Rejections - 35 USC § 103

15. Claims 2-3 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard et al. The teachings of Shepard et al are discussed above. Shepard et al teach that the outer sealant layer can comprise a blend of polymers as recited above including EVA, a very low density polyethylene, a linear polyethylene having a density less than 0.95 g/cc, metallocene catalyzed polyolefins and ethylene α-olefin copolymers having a density and melting point within the instant range. Though Shepard et al teach that multilayer films have improved clarity, gloss and low haze, and that the outer sealant layer can comprise a blend of materials as instantly claimed, Shepard et al do not specifically teach the weight percentages of the particular polymers of the sealant layer blend. However, given that Shepard et al teach that the outer sealant layer can be formed from a blend of the disclosed materials, and given the absence of a showing of critically or unexpected results with regards to the instantly claimed blend composition, it would have been obvious to one skilled in the art to utilize any blend of these materials or to utilize routine experimentation to determine the optimum blend to provide the film with the desired sealant, gloss, clarity and haze properties for a particular end use.

16. Claims 7-9, 20-22, 29-30, and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard et al. The teachings of Shepard et al are discussed above. Though Shepard et al teach that the multilayer film has a typical thickness of 2-10 mils (50.8μm-254μm), with each layer comprising a particular percentage of the total film thickness whether the layer ranges fall within the instantly claimed ranges, Shepard et al do not specifically teach that the

layers have a corresponding thickness as instantly claimed. However, given that it is well known in the art that the thickness of the layers is a result-effective variable wherein the thickness affects the properties of the film including mechanical and physical properties, it would have been obvious to one skilled in the art to utilize routine experimentation to determine the optimum layer thickness for each layer of the multilayer film taught by Shepard et al.

17. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard et al. The teachings of Shepard et al are discussed above. Though Shepard et al teach that the multilayer film may further comprise an antiblocking agent which is a processing aid, Shepard et al do not specifically teach that the outer layer of the multilayer film comprises a fluoroelastomer processing aid in the amount instantly recited. However, processing aids including conventional fluoroelastomer processing aids are conventional and well known additives in the art to incorporate into the outer layer of a film to improve the machinability and handling of the multilayer films, and hence, in the absence of a showing of unexpected results, would have been obvious to one skilled in the art at the time of the invention to incorporate conventional additives such as processing aids like fluoroelastomers into the outer layer of the film taught by Shepard et al. Further, it would have been obvious to one skilled in the art at the time of the invention to determine the optimum amount of processing aid to provide the desired processability given that it is well known in the art that the amount is a result-effective variable affecting the machinability and handling of the resulting film.

18. Claims 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard et al. The teachings of Shepard et al are discussed above. Shepard et al teach that the nylon intermediate layers preferably comprise 5-35wt% of an amorphous nylon blended with one or

more various other nylons commonly used in the art of making polymeric films such as nylon 6, nylon 6,6, nylon 6, 12, or nylon 12. Though Shepard et al do not specifically teach the use of nylon 6,66 as the other nylon in the nylon blend layer, nylon 6,66 is an obvious species of nylon utilized in making polymer films and would have been obvious to one skilled in the art at the time of the invention. Further, in the absence of a showing of unexpected results, it would have been obvious to one skilled in the art at the time of the invention to utilize any other conventional nylon copolymers such as nylon 6,66 in any comonomer ratio.

19. Claims 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard et al. The teachings of Shepard et al are discussed above. Shepard et al teach that the non-moisture barrier outer layer (other or second outer layer) may include an ionomer however Shepard et al do not specifically teach that the ionomer is a sodium or zinc ionomer. However, sodium and/or zinc ionomers are obvious species of ionomeric material utilized in the art and would have been obvious to one skilled in the art at the time of the invention given the absence of a showing of unexpected results.

Response to Arguments

20. Applicant's arguments with respect to claims 1-38 have been considered but are not persuasive and/or moot in view of the new ground(s) of rejection. The Applicant argues the rejections under 35 U.S.C. 112, 2nd paragraph, as recited in paragraphs 4 and 6 of the prior office, however, the Examiner does not find these arguments persuasive and maintains that the recited claims are indefinite for the reasons restated above with further explanations. The Applicant further argues that the instant invention provides unexpected results with regards to abrasion, puncture and impact resistance as well as formability. However, it is noted that the

examples and comparative examples provided in the original disclosure provide no showing of unexpected results with regards to the particular outer blend composition, the composition of the nylon layer, the use of a fluoroelastomer processing aid, the type of ionomer used in the inner layer, or the thickness of the individual layers as instantly claimed. In fact, the Applicant only compares the inventive film to films which do not have the same layer structure/combination and only comprise layers of a single material, and hence do not comprise any blend layers as recited by Shepard et al. Hence, the Applicant provides no showing of unexpected results over the closest prior art, namely Shepard et al, in order to overcome the above recited obviousness rejections.

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bekele (USPN 5,183,706) teaches a multilayer polymeric web that can be thermoformed comprising a nylon core layer, a polyolefin sealant layer, an inner polyolefin adherent layer, and anhydride modified polyolefin adhesive layer(s). Bekele (USPN 5,491,009) teaches a multilayer polymeric films comprising a nylon blend layer comprising amorphous nylon and nylon 6,66, an outer polyolefin sealant layer, and an outer polyolefin heat resistant layer, with modified polyolefin adhesive layer(s).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-305-5436 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

mrj
October 19, 2001

Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700